Awareness and Impact of Education on Breast Self Examination Among College Going Girls

Shalini, Divya Varghese, Malathi Nayak

Department of Community Health Nursing, Manipal College of Nursing, Manipal University,
Manipal, Udupi, Karnataka, India

Address for correspondence: Mrs. Malathi Nayak; E-mail: malathinayak@yahoo.co.in

ABSTRACT

Introduction: Breast cancer accounts for 19-34% of all cancer cases among women in India. There is high mortality due to late stage diagnosis as patients usually present at an advanced stage because of lack of awareness and nonexistent breast cancer screening programs. Early detection and prompt treatment offer the greatest chance of long-term survival and breast self-examination (BSE) seems to be a important viable optional substitute for early detection of cancer.

Objectives: 1) To assess the level of knowledge of degree college female students on BSE. 2) To determine the effectiveness of planned teaching program among degree college female students on BSE. 3) To find the association between pretest knowledge and selected demographic variables.

Materials and Methods: Pre-experimental one group pretestpost-test design was carried out among 40 degree female students by using cluster sampling method from selected colleges of Udupi district.

Results: The data analyzed showed that majority (52%) of them was in the age group of 18-19 years and 72% of them were had average knowledge on BSE in the pretest score. Out of 40 participants only one student was performing BSE occasionally.

Conclusions: Awareness regarding breast self examination among young generations is useful and it is the most important viable tool for early detection.

Key words: Awareness, Breast cancer, Breast self-examination, Knowledge

INTRODUCTION

Cancer is the second leading cause of mortality and morbidity in both developed and developing countries. In India, cancer prevalence is estimated around 2.5 million, with over 0.8 million new cases and 0.5 million deaths occurring each year**.** Cancer registries listed as the second most common cancer among women. There is an increase in the incidence of breast cancer and found to be gradually overtaking cancer of the cervix.[1]

Breast self-examination (BSE) is an important screening measure for detecting breast cancer.[2] There is evidence that women who correctly practice BSE monthly are more likely to detect a lump in the early stage of its development, and early diagnosis has been reported to influence early treatment, to yield a better survival rate.[3]

Thus the present study aimed at identifying the level of knowledge and practice of BSE among degree female students who are the citizen of the future and they can teach their family members, neighbors, friends and the community which helps the people to detect breast cancer in early stage. Thus the morbidity or mortality can be reduced. In the current study only one participant was practicing BSE occasionally so incorporating the BSE concept in the degree education curriculum is very useful and helpful.

Purpose

The present study aimed at assessing the level of

knowledge and the effectiveness of planned teaching program among degree female students on BSE.[4] It is a patient-centred, inexpensive and noninvasive method of screening for breast cancer. Based on increased incidence of breast cancer and unawareness of BSE among young women, researcher felt a need to provide awareness of BSE among young women and can be reduced the incidence and prevalence of breast cancer in future.[5,6]

Objectives

The objectives of the study were to:
1. To assess the level of knowledge of degree college female students on BSE.
2. To determine the effectiveness of planned teaching program among degree college female students on BSE.
3. To find the association between pretest knowledge and selected demographical variables.[7]

Hypotheses

The study attempted to test following hypotheses

All the hypotheses were tested at 0.05 level of significance.
*   There will be a significant difference between pretest and post-test score on knowledge of BSE among degree college female students.
*   There will be a significant association between pretest knowledge score and selected demographical variables.

Assumption

The study assumed that:
*   The degree college female students will have some knowledge on BSE.
*   Feel free to express their attitude toward BSE.
*   BSE helps in early detection of breast cancer.

Variables

Independent variables: Teaching program on BSE.

Selected variables: age, education, parent's education and exposure to mass media.

MATERIALS AND METHODS

A pre-experimental one group pretestpost-test study was conducted among degree female students from selected colleges of Udupi district. A cluster sampling technique was used to select the college and 40 students selected by convenient method from all the streams of study.

Data collection instruments

Data was collected by using structured and validated questionnaire and planned teaching program. The questionnaire had three parts [Appendix].

Part 1

Demographic proforma consisted of age, stream of study, education and occupation of parents, income of parents and sources of information on BSE.

Part 2

A structured questionnaire consisted of 25 Multiple Choice Questions (MCQ) was developed to assess the knowledge on BSE. Each correct response carried one mark. Total score was 25. Knowledge scores were categorized into poor (0-8), average (9-16) and good (17-25).

Part 3

Planned teaching program. Lesson plan with power point presentation given for validation contained basic anatomy and physiology, risk factors for breast cancer and steps of BSE.

Validity of the tools was established by submitting to seven experts and there was 100% agreement on all items. Reliability was established by administering the tool to10 students. Reliability coefficient of knowledge questionnaire was established by split half method using Spearman Brown prophecy formula. Reliability coefficient was found to be 0.9.

Data collection procedure

Administrative permission was obtained from the Principal of selected colleges. Written consent was obtained from the study participants. Questionnaire was administered to them in the classroom setting. The time taken to respond to the questionnaire was 40-45 minutes. Data was collected by administering knowledge questionnaire on BSE and planned teaching program was introduced for them. On 8th day post-test was done by administering the same tool.

Data were analyzed using SPSS package version 11.5. The data was analyzed using descriptive (frequency and percentage) and inferential statistics based on the objectives and hypotheses.

RESULT

The data presented in Table 1 shows that among 40

samples, the majority (52.5%) of the samples were in the age group of 18-19 years and majority (90%) of them were studying in basic science group.

Only 35% of them were heard about BSE through mass media and 8.5% of participant (only one participant) were practiced BSE only one time at the time of study.

The description of knowledge scores shows that 72.5% of students had average knowledge on BSE in pre test and 85% of students had good knowledge score in post-test [Figure 1, Table 2]. The paired '*t*' test computed to test the effectiveness of planned teaching program on BSE (t=12.46) shown in Table 3. It shows the awareness program on BSE was very effective.

The χ^2 computed to find the association between knowledge and selected variables shows no significant association between knowledge and selected variables. Hence the null hypotheses was accepted and research hypotheses was rejected shown in Table 4.

DISCUSSION

A survey conducted among nurses and midwives in Turkey found that among 80 samples only 52% of samples performed BSE, no significant relation was found between sociodemographic factor and BSE.

A study conducted in Chennai by S. Aruna supported this study as no significant association found between demographic variables and level of knowledge of breast cancer and BSE among working women.[8]

Study conducted among resettlement colony women, shows that they have poor knowledge on breast cancer and risk factors, warning signs and early detection procedure.

The World Health Organization stresses on promoting awareness in the community and encouraging early
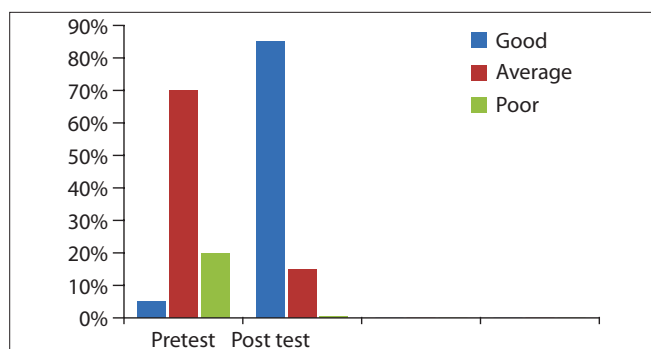
Figure 1: Percentage distribution of sample based on knowledge score

Table 1: Sample characteristics

Demographical variables	(*n*=40)	F	%
Age	18-19 years	21	52.5
	20-21 years	19	47.5
Religion	Hindu	31	77.5
	Muslim	2	5
	Christian	7	17.5
Education	B.Sc.	36	90
	B.Com.	04	10
Father's education	≤SSLC	14	35
	≥ PUC	26	65
Mother's education	≤SSLC	18	45
	≥ PUC	22	55
Father's occupation	Business	12	30
	Others	28	70
Mother's occupation	Employed	13	32.5
	House wife	27	67.5
Type of family	Joint	09	25
	Nuclear	31	77.5
Exposure to mass media	Yes	39	97.5
	No	01	2.5
Have you heard/read about a program on BSE	Yes	14	35
	No	26	65
Have you ever performed BSE	Yes	01	2.5
	No	39	97.5
If Yes how often do you performed	Once	01	2.5
	>1	39	97.5

BSE: Breast self-examination

Table 2: Frequency and percentage of knowledge score

Knowledge category	Range of knowledge score	Pre-test		Post-test	
		F	%	F	%
Good	17-25	2	5	34	85
Average	9-16	29	72.5	6	15
Poor	0-8	9	22.5	-	-

Table 3: Computation of effectiveness of planned teaching program

Knowledge	Mean	t	df	*P*-value
Pretest	27	12.46	39	0.05
Post-test	50			

Table 4: χ^2 value computed between pretest knowledge and selected variables

Variables	Knowledge Score		χ^2	df	Significance
	Low	High			
Age					
18-19	16	05	0.539	1	NS
20-21	13	06			
Education					
B.Sc.	25	11	0.353	1	NS
B.Com.	04	00			
Exposure to mass media					
Yes	09	05	0.446	1	NS
No	20	06			

diagnosis of breast cancer, especially for women aged 40-69 years who are attending primary health care centres of hospitals for other reason, by offering clinical breast examination.

There are other many methods to detect the breast cancer but those are expensive for the community. Allwomen may not be able to afford the cost of the procedure. Breast-related matters are sensitive issues for few females; unless the breast lesions starts bothering them they may not seek medical attention. BSE is the cheapest and convenient method to detect the breast cancer in the early stage.

CONCLUSIONS

In this study majority of the samples acquired good knowledge on BSE. BSE plays a major role in early detection and prevention or prompt treatment of breast cancer. By giving teaching to the young girls, they can teach their mother and siblings so that the incidence of the breast cancer may be reduced. It is essential task of each and every woman to do BSE and protect herself and her family. The nurse has to play an important role in health promotion and it is only possible when she teaches or educates her client. However, the teaching of BSE can help women to be alert to any abnormal changes in their breasts and seek medical advice immediately.

Appendix: Research tool

Demographic performa

Tool-1: Kindly read the following questions and fill in the space provided or place a tick mark (√) in the appropriate space provided for the same.

1. Age in years
2. Course studying
3. Religion;
4. Education of mother
   a) Illiterate   b) Primary school   c) High school   d) Preuniversity   e) Graduate   f) Postgraduate   g) Any other
5. Education of father
   a) Illiterate   b) Primary school   c) High school   d) Preuniversity   e) Graduate   f) Postgraduate   g) Any other
6. Father's occupation: _____
7. Mother's occupation: _____
8. Type of family:
   a) Joint   b) Nuclear
9. From which source do you gain information specific to breast self-examination ?
   a) News paper   b) Magazine   c) T.V   d) Radio   e) Internet   f) Health personal   g) Family member   h) Neighbors   i) Friends
10. Have you ever read/heard watched a program on breast self-examination ?
    a) Yes   b) No
11. If yes what do you learnt from it?
    a) Importance of breastself-examination   b) Method for breast self-examination   c) Time for breast self-examination   d) All the above
12. Have you ever performed breast self-examination
    a) Yes   b) No
13. If yes how often do you perform it during last year? _____

Tool 2: Structured knowledge questionnaire

Instruction: Kindly answer the following questions by encircling the correct response.

        Answer all the questions:

Example: The taste of sugar is-----
        a) Bitter   b) Sour   c) Spicy   d) Sweet.
1. The meaning of breast self-examination is
   a) Feeling of the breast by one self   b) Palpation of breast   c) Visual inspection of breast   d) All the above.
2. Female breast remains small and immature until------
   a) Delivery   b) Pregnancy   c) Puberty   d) Menopause
3. The total number of lobes in each breast is--------
   a) 5   b) 10   c) 15   d) 20
4. Following are the parts of breast **Except**---------
   a) Areola   b) Milk gland   c) Shoulder   d) Nipple
5. The pigmented area around the nipple is called as
   a) Stroma   b) Ampulla   c) Alveoli   d) Areola
6. Variation in breast tissue occurs during --------
   a) Menstrual cycle   b) Pregnancy   c) Menopause   d) All the above
7. The most common age group who are at risk for breast cancer is---------
   a) 10-19 yrs   b) 20-29 yrs   c) 30-39 yrs   d) Above 40 yrs

Contd.....

Appendix: *Contd.....*

8. Following are the risk factors for breast cancer **EXCEPT**-------

   a) Early menarche   b) Urinary tract infection   c) Null parity   d) Hormone treatment

9. One of the signs of breast cancer in early stage is -----

   a) Chest pain   b) Headache   c) Painless nodule   d) Breathlessness

10. If I find spontaneous discharge from the nipple other than pregnancy, I will----

    a) Do nothing as it is normal   b) See my doctor immediately   c) Stop doing the breast examination   d) None of the above

11. One of the easiest and economical ways to detect breast lump is-----

    a) Breast self-examination   b) X-ray   c) Mammography   d) Blood test

12. The main purpose of doing breast self-examination is--------

    a) To detect any changes in the breast   b) Early detection of breast cancer   c) Provide awareness of normal texture of the breast   d) All the above

13. The ideal age in years when the women should begin practicing breast self-examination is-----------

    a) 20   b) 30   c) 40   d) 50

14. The appropriate time to perform breast self-examination in pre--menopausal is------------

    a) 5-7 days after menstruation   b) During menstruation   c) 5-7 days before menstruation   d) At any time

15. The breast self- examination should be done during this period because breast----------

    a) Becomes soft and least lumpy   b) Color will change   c) Will get swollen up   d) Will be freely movable

16. Standing in front of a mirror in breast self-examination procedure is called as------------

    a) Palpation   b) Inspection   c) Auscultation   d) Percussion

17. The part of the hand used to palpate the breast during BSE is------------------

    a) Nail   b) Wrist   c) Finger pad   d) Palm

18. The number of steps in breast self examination includes----------------------

    a) 3   b) 5   c) 7   d) 9

19. While doing BSE special attention to be given to the area of----------------

    a) Under arm   b) Outer edge of the breast   c) Nipple   d) Back

20. In step five of BSE, the breast examination should be done in the following position of--------

    a) Sitting   b) Standing   c) Leaning forward   d) Lying down

21. Lying flat on the back with the left arm over the head and folded towel under the left shoulder helps to------------------

    a) Flatten the breast and makes easy to check   b) Bulkens the breast and makes easy to check   c) Increase the discomfort   d) Avoid pain and makes easy to check.

22. Clasping the hands behind the forehead and pressing them forward helps to note the following change in breast--------------

    a) Dimpling   b) Color   c) Contour   d) Scaling of skin

23. Following are the techniques of palpation during breast self-examination EXCEPT----------------------

    a) Circular   b) Triangular   c) Vertical strip   d) Wedge

24. After menopause the breast-self examination should be carried out ----------------------

    a) Weekly   b) Monthly   c) Quarterly   d) Yearly

25. The carcinoma of the breast is spread mainly through

    a) Arteries   b) Nerves   c) Muscles   d) Lymphatics

REFERENCES

1. Somdatta P, Baridalyne N. Awareness of breast cancer in women of an urban resettlement colony. Indian J Cancer 2008;45:149-53.

2. WHO Screening for beast cancer. (online) 2008. Available from: http://www.who.int/cancer/detection/breastcancer/en/. [Last cited on 2008 Apr 15].

3. Ertem G, Kocer A. Breast self examination among nurses and midwives in odemis health district in Turkey. Indian J Cancer 2009;46:208-13.

4. Chatergee P. A study to assess the effectiveness of planned teaching programme on the knowledge of GNM students regarding breast cancer and breast self examination and the ability of GNM students to perform breast self examination. Nurs J India 2002;9:3.

5. Hertz SJ, Gudex C. Evaluation of a danish teaching programme in breast self examination. J Cancer Nurs 2005;28:141-7.

6. Rao RS, Nair S, Kamath VG. Acceptability and effectiveness of a breast health awareness programme for rural women. J Med Sci 2005;59:398-402.

7. Roupa Z, Darivakis KD, Gournni M, Binnioriss, Kordlis N. Breast self examination among Greek women living in the greater area of athen. Nursing Web J 2006;12:148-59.

8. Aruna S. A study to assess knowledge regarding breast cancer and BSE among working women in Chennai. Prism's Nurs Pract 2010;5:34-6.